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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,269	12/23/2003	Kurt Nilsson	033972.549252	4452

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EXAMINER

HENRY, MICHAEL C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/743,269	Applicant(s) NILSSON, KURT	
	Examiner Michael C. Henry	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-29 is/are pending in the application.
 4a) Of the above claim(s) 20-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-12, 14-16, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 13 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following office action is a responsive to the amendment filed on 09/22/05 in which a provisional election was made without traverse to prosecute the invention of Group I, claims 10-19. The response has the following effect:

1. Claims 10-19, the invention of Group I are prosecuted by the examiner.
Claims 20-29 are withdrawn.
2. The responsive is contained herein below.

Claims 10-29 are pending in application

This application is a CIP of application 09/722,241, filed 11/27/2000, now patent US 6,686,457 which is a CIP of application 09/091,486, filed 06/19/1998 now patent US 6,444,655.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "Ac" in claim 10, line renders the claim indefinite. This term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

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More specifically, it is unclear whether the term "Ac" represents, acyl or acetyl or some other chemical group or moiety.

The terms "wherein the saccharide is $(\text{HOCH}_2)_3\text{C-NH}$ ", in claim 2 renders the claim indefinite. More specifically, it is unclear which saccharide is being referred to especially since the formula $(\text{HOCH}_2)_3\text{C-NH}$ does not represent or correspond to a saccharide.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-12, 15, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagy et al. (US 5,962,422).

In claim 10, applicant claims "A filtration material comprising: a saccharide coupled to a spacer; and a matrix coupled to the spacer; wherein the spacer comprises the following formula: $-\text{O}(\text{CH}_2)_n\text{PhNH}-$, $-\text{O}(\text{CH}_2)_n\text{NH}-$, or $-\text{N}(\text{Ac})-(\text{CH}_2)_n\text{NH}-$, wherein n is an integer selected from 0, 1, 2, 3, 4, 5, 6, or 7." Nagy et al. disclose applicant's material which contains at least one biologically active saccharide which is covalently bound via a spacer to a cross-linked matrix (see sheet 8, figure 9, last structure). It should be noted that the examiner considers the liposome to which the saccharide-spacer is bound, a cross-linked matrix. Claim 11 which is drawn to the filtration material of claim 10, further comprising a second spacer attached to the matrix is also anticipated by Nagy et al., since Nagy et al.'s material also comprises a second spacer attached to the matrix (see sheet 8, figure 9, last structure). Claim 12 which is drawn to the filtration

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material of claim 10, wherein the matrix is bound to two or more molecules of saccharide, is also anticipated by Nagy et al., since the matrix of Nagy et al.'s material is bound to more than one saccharide (see sheet 8, figure 9, last structure). Claim 15, which is drawn to the filtration material according to claim 10, wherein the saccharide binds to a pathogen, is anticipated by Nagy et al. (see sheet 8, figure 9, last structure). It should be noted that the examiner considers the binding of the pathogen a property or effect of the composition which does not further limit the composition claimed. Claim 16, which is drawn to the filtration material according to claim 10, wherein the saccharide binds an antibody, a cancer-antigen, a toxin, a bacteria, or a virus, is anticipated by Nagy et al. (see sheet 8, figure 9, last structure). It should be noted that the examiner considers the binding of the said an antibody, a cancer-antigen, a toxin, a bacteria, or a virus a property or effect of the composition which does not further limit the composition claimed.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10, 14, 18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1, 18, 20 and 21 of U.S. Patent No. 6,686,457 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because both inventions are directed to a composition comprising : a saccharide coupled to a spacer; and a matrix coupled to the spacer; wherein the spacer comprises a specific formula.

Claim 10 is drawn to a composition comprising: a saccharide coupled to a spacer; and a matrix coupled to the spacer; wherein the spacer comprises the following formula: -

$O(CH_2)_nPhNH-$, $-O(CH_2)_nNH-$, or $-N(Ac)-(CH_2)_nNH-$, wherein n is an integer selected from 0, 1, 2, 3, 4, 5, 6, or 7. Claim 14 is drawn to said composition comprising specific blood group A and B determinants bound to the matrix.

Claim 1 of Nilsson et al. is drawn to a composition comprising: a saccharide-spacer-matrix coupled to the spacer; wherein the spacer has a specific formula. Claims 18, 20 and 21 are drawn to said composition comprising blood group determinants A and B.

The difference between applicant's claimed method and the method of Nilsson et al. is that applicant composition contain other spacers in addition to the spacer ($-O(CH_2)_nNH-$) and the blood group determinants A and B disclosed by Nilsson et al. However, it is obvious to a skilled artisan to prepare Nilsson et al.'s composition comprising the spacer and blood group determinants A and B disclosed by Nilsson et al. ($-O(CH_2)_nNH-$) and other similar compositions comprising similar spacers and blood group determinants that has the same utility as Nilsson et al.'s composition.

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It would have been obvious to one having ordinary skill in the art, at the time the claimed invention was made to prepare Nilsson et al.'s composition comprising the spacer disclosed by Nilsson et al. $(-O(CH_2)_nNH-)$ and other similar compositions comprising similar spacers and blood group determinants that has the same utility as Nilsson et al.'s composition.

One having ordinary skill in the art would have been motivated to prepare Nilsson et al.'s composition comprising the spacer disclosed by Nilsson et al. $(-O(CH_2)_nNH-)$ and other similar compositions comprising similar spacers and blood group determinants in order to use them to treat blood.

Allowable Subject Matter

Claims 13 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The present invention relates to a material comprising saccharide-spacer-matrix where the spacer has a given formula. The very relevant prior art document (Nagy et al. (US 5,962,422) to this invention discloses a material comprising saccharide-spacer-matrix where the spacer has a given formula. However, though the saccharide-spacer-matrix are similar in structure to those of the present invention the material or composition of claims 13 and 17 possess differences to the material or composition of prior art documents and these differences are not suggested in the prior art, nor are obvious over the prior art that are unobvious to those of the prior art. For example, the prior art composition does not comprise cross-linked agarose, nor the composition comprising the specific spacers with ratios of bound saccharides to matrix.

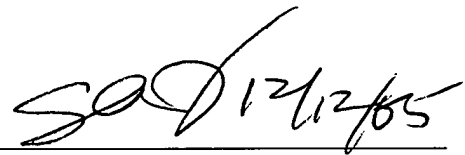
Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652. The examiner can normally be reached on 8:30 am to 5:00 pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang, Ph.D can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1235.

Michael C. Henry

A handwritten signature in black ink, appearing to read 'SAJ 12/12/05', is written over a horizontal line.

Shaojia Anna Jiang, Ph.D.
Supervisory Patent Examiner
Art Unit 1623

December 5, 2005.